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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/496,960	02/03/2000	Michael R. Arneson	1689.0010002	6909

7590 03/03/2003

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EXAMINER	
MYHRE, JAMES W	
ART UNIT	PAPER NUMBER
3622	

DATE MAILED: 03/03/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/496,960**

Applicant(s)  
**Arneson et al**

Examiner  
**James W. Myhre**

Art Unit  
**3622**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jan 29, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## DETAILED ACTION

### *Response to Amendment*

1. The amendment filed on January 29, 2003 under 37 CFR 1.111 has been considered but is ineffective to overcome the Guthrie et al (5,289,372) and Kaplan et al (3,689,885) references.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14, 16, 17, 19-32, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guthrie et al (5,289,372).

Claims 1 and 19: Guthrie discloses a system and method for conducting an inventory of items with attached tags, comprising:

- a. Selecting a remote sensor (collector) to poll a plurality of tags (sensors) within the collector's physical area of control;
- b. Receiving and storing information from the polled tags;
- c. Repeating the polling by other collectors in the system; and

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d. Processing the received polling information to determine the inventory status of the system (col 3, line 50 - col 4, line 55).

Guthrie also discloses that using wireless (RF) transmissions for communicating between the tags and the collector such as in Caswell (4,636,950) is “not suitable for Federal Government facilities”...”and where secrecy considerations are required” (col 3, lines 15-44). While Guthrie uses wired connections to link the tags and the collector in his invention, it would have been obvious to one having ordinary skill in the art at the time the invention was made that wireless connections could also be used if, as Guthrie implies, secrecy requirements were not a concern. One would have been motivated to use wireless transmissions to poll the tags in Guthrie in order to enable the invention to be used for inventorying non-electric or mobile items such as items in a storeroom.

Claims 2 and 20: Guthrie discloses a system and method for conducting an inventory of items as in Claims 1 and 19 above, and further discloses the polling information comprises at least one tag ID (col 3, line 50 - col 4, line 55).

Claims 3 and 21: Guthrie discloses a system and method for conducting an inventory of items as in Claims 2 and 20 above, and further discloses repeating the steps (col 3, line 50 - col 4, line 55 and col 10, lines 52-57).

Claims 4 and 22: Guthrie discloses a system and method for conducting an inventory of items as in Claims 3 and 21 above, and further discloses storing information of tags which failed to respond (missing from inventory)(col 13, lines 56-68 and col 21, line 62 - col 22, line 17).

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Claims 5 and 23: Guthrie discloses a system and method for conducting an inventory of items as in Claims 4 and 22 above, and further discloses initiating a security measure upon detection that a collector or tag does not respond (is missing)(col 13, lines 56-68 and col 21, line 62 - col 22, line 17). Guthrie discloses sending maintenance personnel to fix a non-responsive collector, but does not explicitly disclose sending the same maintenance personnel if a tag is non-responsive. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to also send the maintenance personnel to fix non-functioning tags also. One would have been motivated to do this in view of Guthrie's disclosure that information about such non-responsive tags is being stored in the database.

Claims 6, 7, 24, and 25: Guthrie discloses a system and method for conducting an inventory of items as in Claims 5 and 23 above, but does not explicitly disclose that the security action taken when a "missing" item is detected consists of turning on a surveillance camera or activating a silent alarm. Guthrie discloses that a maintenance person is dispatched to the "nonresponsive" collector (col 13, lines 56-68) or information about a non-responsive tag is entered in the Disconnect Table (col 21, line 62 - col 22, line 17). While this may be an appropriate response when applied to Guthrie's example system that is tracking the equipment in a widely distributed computer system, it would have been obvious to one having ordinary skill in the art at the time the invention was made to turn on a surveillance camera, activate an alarm (whether silent or not), or take other security measures such as locking all egresses into and out of the area concerned. The type of security action taken would depend upon the type of items

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being monitored. While in most computer systems Guthrie's sending of maintenance personnel may be appropriate, if the computer system was a highly sensitive classified system used by an intelligence organization or the military, it would be more appropriate to turn on a surveillance camera or to activate a silent alarm instead of sending maintenance (or security) personnel in order to verify the reason for the non-responsiveness of the item and to determine the appropriate response (i.e. sending maintenance personnel if the item is seen to be present or sending security personnel if the item is seen to be missing from its usual place).

Claims 8 and 26: Guthrie discloses a system and method for conducting an inventory of items as in Claims 2 and 20 above, and further discloses correlating the information received from each tag to maintain data regarding the location of each tag (col 3, line 50 - col 4, line 55).

Claims 9 and 27: Guthrie discloses a system and method for conducting an inventory of items as in Claims 1 and 19 above, and further discloses that the information is from a tag within the collector's coverage pattern (col 3, line 50 - col 4, line 55).

Claims 10-14 and 28-32: Guthrie discloses a system and method for conducting an inventory of items as in Claims 9 and 27 above, but does not explicitly disclose that the sensor information indicates tag movement, tag vibration, tag temperature, or a security breach comprising one of these parameters. Official Notice is taken that it is old and well known in the security arts to use motion, vibration, and/or temperature sensors to detect theft, abuse, or failure of an item. These types of sensors are used in many areas, such as car alarms (motion and vibration); factories, buildings heating/cooling systems, nuclear power plants (temperature); etc.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to monitor movement, vibration, and/or temperature fluctuation of the tagged item. One would have been motivated to monitor these types of elements in order to better determine when an exception status has occurred so the appropriate response could be initiated.

Claims 16 and 34: Guthrie discloses a system and method for conducting an inventory of items as in Claims 1 and 19 above, and further substantially discloses the claimed steps for polling (interrogating) the tags (col 3, line 50 - col 4, line 55). The wake-up signal, timer, and counter are all well known in the sensor art and discussed by Guthrie (col 13, lines 3-55) as well as by other cited art. Therefore, the claimed polling (interrogation) steps would have been obvious to one having ordinary skill in the art at the time the invention was made. One would have been motivated to poll the tagged items in this manner in view of Guthrie's disclosure of such components within his system.

Claims 17 and 35: Guthrie discloses a system and method for conducting an inventory of items as in Claims 1 and 19 above, but does not explicitly disclose that the tag reader is a PCMCIA card. The Examiner notes that a PCMCIA card is the common standard used on PC card-based peripherals on portable (and personal) computers throughout the industry and is also the standard name for PC cards which were first introduced in June 1990. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a PCMCIA card to read the tags. One would have been motivated to use a PCMCIA card in view of its standard usage for such applications throughout the industry.

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4. Claims 15, 18, 33, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guthrie et al (5,289,372) in view of Kaplan et al (3,689,885).

Claims 15, 18, 33, and 36: Guthrie discloses a system and method for conducting an inventory of items as in Claims 1 and 19 above, but does not explicitly disclose that the tags are connected to the collector through an electrical power distribution system nor attached to an electrical light fixture. Kaplan discloses a similar system and method for polling tags in which the nodes are connected through an electrical power distribution system (Figure 5A, item 172 and col 9, lines 39-62). While Kaplan does not explicitly disclose connecting to the electrical power distribution system through an electrical lighting fixture, Official Notice is taken that it is old and well known in the electrical arts that items can be connected to an electrical system by direct wiring, outlet plugs, or through light fixtures (the Examiner has used a motion sensor integrated into a light fixture to activate outdoor lighting on his house for years). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the collectors, tags, and other system components through an electrical power distribution system and to use one or more of the usual electrical connection modes to include an electrical lighting fixture. One would have been motivated to connect to such a system in such a manner in order to provide a constant supply of power without needing to replace batteries constantly.



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5. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guthrie et al (5,289,372) in view of Walter (5,856,788).

Claims 37 and 38: Guthrie discloses a method and system for conducting an inventory of items as in Claims 1 and 19 above, but does not explicitly disclose the time slot contention is resolved by the tag sending a first plurality of bits of its ID number during a first read and a second plurality of bits during a second read. Walter discloses a similar method and system for wirelessly interrogating identification tags in which each tag transmits a first bit of its identification number during a first read and then subsequent bits during subsequent reads if there was time slot contention during the previous read (col 5, lines 1-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use such a bitwise interrogation of the tags in Guthrie to resolve time slot contention. One would have been motivated to use bitwise interrogation in view of Guthrie's disclosure of reading in eight bits of the tag ID at a time until all 26 bits have been received (col 10, lines 5-25).

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. James W. Myhre whose telephone number is (703) 308-7843. The examiner can normally be reached on weekdays from 6:30 a.m. to 3:30 p.m.

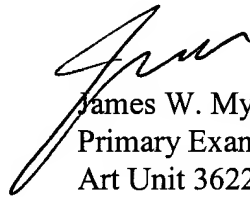
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber, can be reached on (703) 305-8469. The fax phone number for Formal or Official faxes to Technology Center 3600 is (703) 872-9326. Draft or Informal faxes may be submitted to (703) 872-9327 or directly to the examiner at (703) 746-5544.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703) 308-1113.



February 26, 2003



James W. Myhre  
Primary Examiner  
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